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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/512,080	05/05/2005	Adolf Kuhnle	260235US0XPCT	2790

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EXAMINER	
MOORE, MARGARET G	
ART UNIT	**PAPER NUMBER**
1712	

DATE MAILED: 06/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/512,080	KUHNLE ET AL.	
	Examiner	Art Unit	
	Margaret G. Moore	1712	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 April 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *30 to 38* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *30 to 38* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1. Claims 30 to 38 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The size "less than 20 Mn" is improper.

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 30 to 38 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 29 to 41 of copending Application No. 10/511,593. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims in '593 do not specifically state the particle size of the crosslinker, but the crosslinker and the nanofiller in instant claim 30 have the exact same chemical formula and as such the crosslinker in '593 will inherently meet the requirement of the nanofiller in the instant claims. As such the crosslinked matrix in '593 will inherently be the same as matrix containing a covalently bonded nanofiller as claimed. Note that claims 31 to 34 correspond to claims 33 to 39 in '593. The process claim 35 and method claim 38 corresponds to claim 39 in '593

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

4. Claims 30 to 38 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 to 34 of copending Application No. 10/887,103. Although the conflicting claims are not identical, they are not patentably distinct from each other because, as noted above, the polyhedral compound in '103 will inherently meet the particle size requirement. The curable composition in '103 crosslinks to form a matrix in which the polyhedral compound therein is covalently bonded to a matrix. See particularly claim 34 which is drawn to the cured composition.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

5. Claims 30 to 38 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 to 42 of copending Application No. 10/886,621. Although the conflicting claims are not identical, they are not patentably distinct from each other because, as noted above, the polyhedral compound in '621 will inherently meet the required particle size range. The composition in '621 will crosslink and the polyhedral compound therein will covalently attach to the binder, thereby forming a matrix within the breadth of the instant claims.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

6. Applicants have not attempted to overcome these rejections. As such these rejections are maintained.

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 30 to 35 and 38 are rejected under 35 U.S.C. 102(b) as being anticipated by Lichtenhan et al '867.

This rejection relies on the rationale noted in the previous office action.

Applicants' traversal of this rejection is not persuasive. They argue that patentees do not describe or suggest limiting the reaction between the X substituent and the matrix in the manner claimed. From this the examiner assumes applicants mean, as found in the claims, "there not being more than one substituent of the type X per cluster unit". This arguments is not consistent with that found in Lichtenhan et al. See for instance column 4, lines 1 to 30, which clearly shows the silicone material attached to an organic backbone at only one location. See also column 8, lines 13 and on, which state that "grafting reactions are preferred where formula 2 contains only one functional point of attachment". Thus Lichtenhan et al. meets this newly added claim requirement. With regard to applicants' comment of "surprising results" the Examiner notes that it is well settled that the discovery of a new and unobvious property and use does not overcome anticipation when the claimed composition is known. The prior need not teach such results for an anticipation rejection.

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

10. Claims 30 to 38 are rejected under 35 U.S.C. 102(e) as being anticipated by Laine et al.

This rejection relies on the rationale noted in the previous office action.

Applicants' traversal of this rejection is not persuasive. They argue that patentees

do not describe or suggest limiting the reaction between the X substituent and the matrix in the manner claimed. From this the examiner assumes applicants mean, as found in the claims, "there not being more than one substituent of the type X per cluster unit". This arguments is not consistent with that found in Laine et al.

While many of the figures in Laine et al. show more than one bonded X group, please see column 6, line 44, which teaches that the number of phenyl groups which are functionalized may be one. This meets the claimed limitation.

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Margaret G. Moore whose telephone number is 571-272-1090. The examiner can normally be reached on Monday to Wednesday and Friday, 10am to 4pm.

Margaret G. Moore
Primary Examiner
Art Unit 1712

mgm
5/30/06